

REMARKS/ARGUMENTS

Applicants respectfully request reconsideration and allowance of this application in view of the amendments above and the following comments.

New claims 13-15 are added.

With respect to new claim 13, Applicants point out that the preferred embodiment at page 12, lines 8 ff, involves a backing assembly produced from two outer layers and an interlayer by laminating together two backing materials, coated on one side with adhesive, with an offset. This teaching suggests a non-preferred embodiment wherein the assembly is made without the offset.

Indeed, instant Example 1 describes the construction of the tape being made by laminating together two identical tapes. The description is silent about the tapes being laminated together with on offset, consequently, persons skilled in the art would understand that the tape is produced without layers A and B being offset.

Finally, since the layers A and B being offset is positively recited, Applicants may exclude this embodiment, as a matter of law, without introducing new matter. See, MPEP § 2173.05(i) ("If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims.")

With respect to claims 14 and 15, the lower end of the range is supported by page 14, line 16; and the upper ends are supported by page 10, lines 18-19.

Applicants do not believe that any of the amendments introduce new matter. An early notice to that effect is earnestly solicited.

Claims 1-11 were rejected under 35 USC § 112, second paragraph, as being indefinite. In response, Applicants point out that the term “firmly” appears in the claims of over 18,000 U.S. patents issued since 1976 and, thus, like “substantially” is routinely accepted even though it may be relative terminology. Given the function that the interlayer C plays in the inventive construct as discussed beginning at page 8, lines 4ff, and the manner in which this function is carried out, persons skilled in the art would clearly understand and be able to determine what firmness is sufficient.

With respect to claim 3, and the question of antecedent basis for “the individual piles,” Applicants have amended claim 3 in a manner that moots this rejection. An early notice that this rejection is overcome is, therefore, earnestly solicited.

Claims 1-3, 5 and 7-12 were rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna et al. (“Samson-Himmelstjerna”), US 2003/0198806.

Claim 6 was rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Lodde, US 2002/0053392.

Claims 1-3, 5 and 7-12 were rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Zafiroglu, US 7,622,408.

Claim 6 was rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Zafiroglu, further in view of Lodde.

Claim 4 was rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Tanaka et al. (“Tanaka”), US 2003/0118769.

Claim 4 was rejected under 35 USC § 103(a) as being obvious over Samson-Himmelstjerna in view of Zafiroglu, further in view of Tanaka.

Applicants respond to *all* of the prior art rejections together.

While not conceding that the any of the cited combinations of references make out a *prima facie* case of the obviousness of any of the rejected claims, Applicants respectfully submit that once again the data in the instant specification prove nonobviousness.

Applicants previously argued that the data in the instant specification establish the criticality of the interlayer C basis weight. The data reported on pages 14 ff, as summarized in Table 2 on page 14, and Table 3 on page 16, show that very high abrasion and scuff resistances are achievable only if the basis weight of interlayer C is manipulated within the presently claimed ranges. Compare A and B to C and D in Table 2; and 3 to 5-9 in Table 3. See also the Counterexample on page 19. There is nothing in Samson-Himmelstjerna establishing the basis weight of interlayer C as a result-effective variable affecting abrasion and scuff resistance. Consequently, a person having ordinary skill in the art would not, as a matter of law, have found it obvious to optimize this parameter. *See, e.g., In re Antoine*, 195 USPQ 6 (CCPA 1977), for the proposition that there is no motivation to optimize a variable where the prior art does not reveal the optimized variable to be result-effective.

The Examiner appears to accept that unexpected results are shown, but objects that “it

cannot be said that the same data would be guaranteed if any other woven fabric or adhesive is used.” In response, Applicants refer the Examiner to MPEP § 716.02(c)(I), entitled “Nonobvious of a Genus or Claimed Range May be Supported by Data Showing Unexpected Results of a Species or Narrower Range under Certain Circumstances.” Those circumstances are “if one of ordinary skill in the art would be able to determine a trend in the exemplified data which would allow the artisan to reasonably extend the probative value thereof.” Applicants respectfully submit that such circumstances exist on the present record.

First, the test results reported in Table 2 on page 14 were compiled from comparison of assemblies that differed only in the adhesives employed. In each case, the outer layers were identical. Consequently, a person having ordinary skill in the art would be reasonable to conclude that differences in the outer layer woven or formed-loop knit composition would not be expected to significantly impact the results. In other words, irrespective of the woven or formed-loop knit, a person having ordinary skill in the art would have been reasonable to expect, given the data in the instant specification, that manipulating interlayer C in the manner required by the instant claims should give an improvement in abrasion resistance.

Second, the data in Table 2 show that a small amount of a laminating adhesive is no better than no adhesive at all, as Test A without adhesive was resistant for 5130 cycles, whereas Test B with laminating adhesive was resistant only for a few more cycles at 5310 cycles.

Third, Tests C and D prove that increasing the weight of the adhesive, in this case, even different adhesives (acrylate hotmelt in Test C and natural rubber in Test D) *synergistically* improves the abrasion resistance, as the increase in abrasion resistance in terms of increases in

the number of cycles is more than 100% of Test A.

Fourth, the specification explains on page 8, lines 4 ff, that the improvement is brought about at least in part by the high weights of adhesive used being able to dissipate negative energies being brought to bear on the outer layers that might lead to rubbing, scuffing and wearing. A person having ordinary skill in the art, given the data, and considering the explanation, would be reasonable to expect similar results with other adhesives and amounts. In other words, such person would have no good reason to believe that the results demonstrated are limited to the particular adhesives shown, especially in view of the technical explanation how the improvement is brought about.

Indeed, the specification teaches at page 10, lines 18-19, that “[f]or an inventive improvement in abrasion resistance, suitable basis masses for the interlayer C are from 40 to 600 g/m², in particular 50 to 300 g/m².¹⁰” This teaching, coupled with the data in Table 2 provides reasonable assurance for the full scope of main claim 1.

Applicants respectfully submit that it is truly surprising and unexpected that the two layers of woven or formed-looped knit give an abrasion resistance that is remarkably better than the predicted abrasion resistance, the sum of the abrasion resistance of layer A and B, as shown in Table 2. A person having ordinary skill in the art would have assumed that the layer C, especially if the layer C is an adhesive, would not remarkably influence the abrasion resistance of the tape. Thus, such a person would have assumed that the three-layered tape as shown as in Samson-Himmelstjerna would show an abrasion resistance which is the sum of the abrasion resistance of layer A and layer B. Such a person could hardly have expected manipulating the

construct as instantly claimed would yield a synergistic effect.

Further, there is nothing in Samson-Himmelstjerna that teaches or suggests that manipulating the basis weight of interlayer C within the presently claimed range should have the dramatic improvement shown on abrasion and scuff resistance. Accordingly, the data in the instant specification must be regarded as surprising and unexpected and, therefore, as objective evidence of nonobviousness. Further, although these data are not in declaration form, consistent with the rule that *all* evidence of nonobviousness must be considered when assessing patentability, the Examiner must consider data in the specification in determining whether the claimed invention provides unexpected results. *In re Soni*, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995).

In view of the foregoing, Applicants respectfully submit that none of the various combinations of references necessitates the rejection of any of the rejected claims. Accordingly, Applicants respectfully request that the Examiner reconsider and withdraw all of the rejections. An early notice that these rejections have all be reconsidered and withdrawn is also earnestly solicited.

New claims 14 and 15 should be free of these rejections in any event because the ranges therein do not overlap with Samson-Himmelstjerna, and Samson-Himmelstjerna does not teach or suggest interlayer C weight is a result effective variable regulating abrasion resistance. Accordingly, no *prima facie* case of obviousness could possibly exist as to these claims.

Applicants believe that the foregoing constitutes a bona fide response to all outstanding objections and rejections.

Applicants also believe that this application is in condition for immediate allowance.

However, should any issue(s) of a minor nature remain, the Examiner is respectfully requested to telephone the undersigned at telephone number (212) 808-0700 so that the issue(s) might be promptly resolved.

Early and favorable action is earnestly solicited.

Respectfully submitted,
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